

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011619**Date Inspected:** 02-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lv Li Qing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance(QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

Bay #14

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 11DE at corner Assembly, weld No. CSD4-PP104-083. The welder is identified as #050988. ZPMC QC is identified as Mr. Zhong Guo Hai. The welding variables recorded by QC appear to comply with WPS-B-T-2232-Tc-U4b-F .

SAW in the 1G position for the OBG segment 12AE , weld No. SEG-3001AL-001. The welder is identified as #044771. ZPMC QC is identified as Mr. Zhong Guo Hai. The welding variables recorded by QC appear to comply with WPS-B-T-2221-B-L2c-S-2 .

SAW in the 1G position for the OBG segment 12AW, weld No. SEG-3004AL-010. The welder is identified as #045270. ZPMC QC is identified as Mr. XuTao. The welding variables recorded by QC appear to comply with WPS-B-T-2221-B-L2c-S-2 .

FCAW in the 2G position for the OBG Segment 10CW , weld No. SSD10A-PP92-226. The welder is identified as #202122. ZPMC QC is identified as Mr. Zhong Guo Hai. The welding variables recorded by QC appear to

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comply with WPS-B-T-2233-Tc-U4b-F .

Bay #13

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 11AW, weld No. SEG-065-034. The welder is identified as #055491. ZPMC QC is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appear to comply with WPS-B-T-2233-B-U2-F .

SMAW in the 4G position for the OBG Segment 11BW, weld No. SSD067A-039. The welder is identified as #067764. ZPMC QC is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appear to comply with WPS-B-T-2214-Tc-U4b-FCM-1 .

FCAW in the 3G position for the OBG Segment 11BW, weld No. SSD17A-PP100-255. The welder is identified as #044772. ZPMC QC is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appear to comply with WPS-B-T-2233-Tc-U5-F .

OUT SIDE

This QA Inspector observed the following work in progress:

SMAW in the 4G position for the OBG Segment 7EW, weld No. OB7E-022. The welder is identified as #205718. ZPMC QC is identified as Mr. Wang Xiang Qin. The welding variables recorded by QC appear to comply with WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW in the 4G position for the OBG Segment 9DE, weld No. OB9E-021. The welder is identified as #067656. ZPMC QC is identified as Mr. Wang Xiang Qin. The welding variables recorded by QC appear to comply with WPS-B-P-2214-Tc-U4b-FCM-1.

FCAW in the 2F position for the OBG Segment 9DE, weld No. SSD18-PP82-015. The welder is identified as #055564. ZPMC QC is identified as Mr. Wang Xiang Qin. The welding variables recorded by QC appear to comply with WPS-B-T-2132-3.

During the Quality Assurance random Visual Inspection of welds located on Orthotropic Box Girder (OBG) segment 9BW, this Quality Assurance Inspector (QA) discovered the following issues. One (1) area of misalignment was measured at a transition in thickness Complete Joint Penetration (CJP) butt weld. -The weld joint is identified as SSD10-PP74-001. The weld joint is located in OBG segment 9BW at Panel Point (PP) 074 on the Counter Weight side. The Corner Assembly Web (X151B) Seismic Performance Critical Material (SPCM) plate connects to the Deck Panel Diaphragm (X1A). The weld joint SSD10-PP74-001 is a transition in thickness from 22mm (X151A) to 14mm (X1A). The misalignment/offset was measured at approximately 9.5mm. The weld joint is misaligned for 70mm along the axis of the weld. The maximum misalignment/offset allowed per American Weld Society (AWS) D1.5 2002 is 1.4mm (10% of the thinner part).

This QA Inspector generated an incident report for this date.

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During the Quality Assurance (QA) random in-process visual inspection of Segment 9BW, this QA inspector discovered that the Base metal repairs being performed in way of temporary attachment removal areas on the Deck plate near PP74 without the prior approval of the engineer. The plate identifications under repair is identified as DP231A, Plate number-PL359A and DP258A, Plate number-PL305A. The material is A709M Grade 345 non SPCM.

This QA Inspector generated an incident report for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Bera,Subhasis	Quality Assurance Inspector
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<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer
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